

Leptodeira annulata (Cat-eyed Snake or False Mapepire)

Family: Dipsadidae (Rear-fanged Snakes)

Order: Squamata (Lizards and Snakes)

Class: Reptilia (Reptiles)



Fig. 1. Cat-eye snake, *Leptodeira annulata*.

[http://calphotos.berkeley.edu/cgi/img_query?enlarge=0000+0000+0410+0665, downloaded 9 February 2017]

TRAITS. *Leptodeira annulata* is a primarily sandy brown to chocolate brown snake with up to 29-51 dark brown blotches on the dorsal side (Fig. 1) according to Boos (2001). It is a slender snake, and males attain a length of up to 90cm and females up to 100cm (Savage, 2002). They get the name cat-eyed snake from their vertically elliptic pupils. This species is also known as the false mapepire due to the dorsal dark markings, which are in semi-regular patterns and can form zig-zags similar to those of the mapepire *Bothrops atrox* (which is dangerously venomous). *Leptodeira annulata* is not dangerous to humans.

DISTRIBUTION. This animal is found as far north as Guerrero, Mexico, and as far south as northern Argentina (Savage, 2002). Found at elevations of 4-1400m. It is also found on the offshore isle of Margarita as well as Trinidad and Tobago. It is native to and found widespread throughout Trinidad and Tobago (Fig. 2).

HABITAT AND ACTIVITY. Mainly found in lowland areas. The cat-eyed snake prefers shaded semi-arid areas with light canopy and is semi-arboreal (Savage, 2002). They are commonly found near bodies of water as fish, tadpoles and amphibian eggs make up part of their diet. Guyer and Donnely (2005) describe this animal as semi-aquatic, but they do not note much else about its preferences, Savage (2002) further states that these snakes readily enter water bodies. In Trinidad, they can be found in urban settings and is known to be common in piles of rubble, sheds, under floorboards, scaling walls and found in bathrooms (Boos, 2001). As per the name cat-eyed night snake, they are primarily nocturnal animals, usually found in the late evening or early morning period.

FOOD AND FEEDING. They are primarily nocturnal hunters but will actively hunt during the day as well. These snakes consume a wide variety of prey which include but are not limited to: lizards, frogs and toads, frog and toad eggs, smaller snakes, fledgling birds, and fish (Boos, 2001). Boos (2001) also describes this species as cannibalistic and they have been noted to consume their own eggs. These snakes are rear-fanged venomous and its venom is particularly toxic to their anole lizard prey (Boos, 2001). Savage (2002) notes that in the rainy season when amphibian breeding is plentiful these snakes gorge themselves upon young amphibians. In the dry season these snakes are usually found throughout low vegetation searching for prey such as lizards and other snakes.

POPULATION ECOLOGY. Boos (2001) describes these animals as relatively common throughout Trinidad and Tobago. They are found in both rural and urban settings. *Leptodeira annulata* are usually found wherever their prey is thriving (Savage, 2002), gardens infested with anoles usually receive visits from hungry snakes. Some locations where they were documented include but not limited to; Port of Spain, Arima Valley, Santa Cruz, Tacarigua, Huevos Island, St. Anne's, St. Augustine, Cedros, Sangre Grande, Guayaguayare and Palo Seco. Locations in Tobago include but are not limited to; Speyside, Cambleton and Charlotteville (Murphy, 1997). Cat-eyed snakes are by no means territorial but as they have been known to cannibalize one another they may not be often seen together.

REPRODUCTION. Savage (2002) notes that up to 11 eggs are laid during June-November which is the rainy season in Trinidad. Smaller clutch sizes of 1-3 eggs have also been noted. They have been known to utilize bamboo stems as nests, up to 12m high (Savage, 2002). Boos (2001) notes that they utilize the nests of *Acromyrmex octospinosus*, leaf cutter ants to lay eggs. A scientific paper on *Atta colombica*, leaf cutter ants, mentioned that *Leptodeira annulata* utilize their nests as hatcheries (Baer et al., 2009). Boos (2001) also mention that they may retain sperm as captive females have laid clutches of eggs with no male present.

BEHAVIOUR. These snakes almost never bite. When handled, they try to escape and rarely stay still. Their main defence mechanism against predators is excreting a foul smelling odour. Murphy (1997) notes that their venom is mild and if bitten has little effect on humans, with symptoms including swelling and sensitivity in the afflicted area. They camouflage themselves along the forest floor by coiling up and may be easily mistaken for the venomous mapepire.

APPLIED ECOLOGY. This species is listed as Least Concern in the IUCN red list. As it is present in some protected areas, no further protection or policies are needed (IUCN, 2017). As they are commonly mistaken for the lethal mapepire they are usually killed on sight in Trinidad and Tobago as with most snakes, however they as well as other animals are best left alone as they are a vital part of the ecosystem.

REFERENCES

- Baer, B., Boer, S. P., Kronauer, D. J., Nash, D. R., and Boomsma, J. J. (2009). Fungus gardens of the leafcutter ant *Atta colombica* function as egg nurseries for the snake *Leptodeira annulata*. *Insectes Sociaux*, **56**: 289-291.
- Boos, H. E. (2001). The snakes of Trinidad and Tobago. College Station: Texas A & M University Press.
- Guyer, C., and Donnelly, M. A. (2005). Amphibians and reptiles of La Selva, Costa Rica, and the Caribbean Slope: a comprehensive guide. Berkeley, CA: Univ. of California Press.
- IUCN. (2017). *Leptodeira annulata*. The IUCN Red List of Threatened Species. <http://www.iucnredlist.org/details/summary/203541/0>
- Murphy, J. C. (1997). Amphibians and reptiles of Trinidad and Tobago. Malabar, FL: Krieger Pub. Co.
- Savage, J. M. (2002). The amphibians and reptiles of Costa Rica: a herpetofauna between two continents, between two seas. Chicago, IL: University of Chicago Press.

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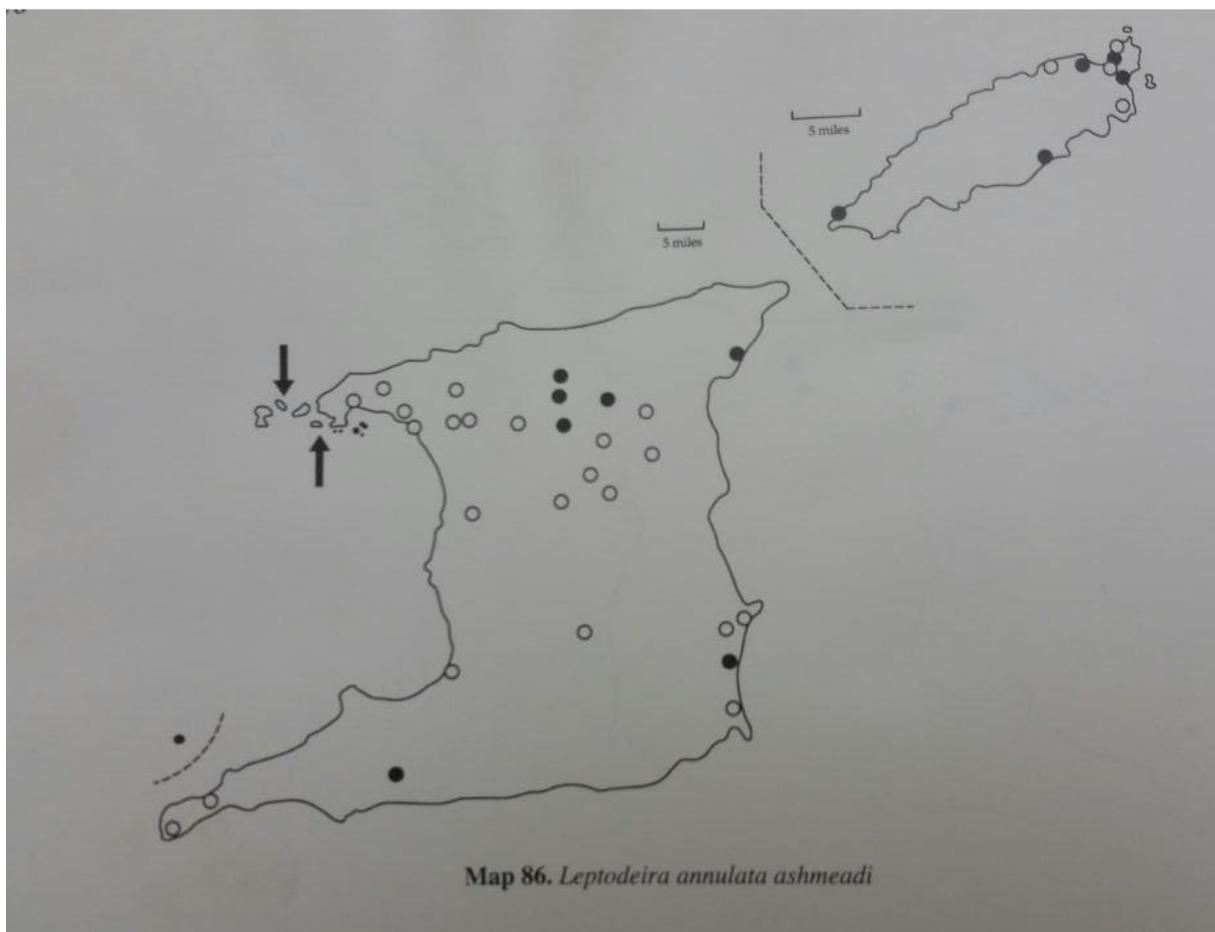


Fig. 2. Distribution of *Leptodeira annulata* in Trinidad and Tobago.

[From Murphy, 1997]